

**What is claimed is:**

1. A cabling media comprising:

a first twisted wire pair including first and second conductors, each separately surrounded by an insulation, wherein the first conductor and the second conductor are continuously twisted about each other along a length of the cabling media, and wherein the first conductor and the second conductor twist completely about each other, three hundred and sixty degrees, at a first interval which purposefully varies along the length of the cabling media;

a second twisted wire pair including third and fourth conductors, each separately surrounded by an insulation, wherein the third conductor and the fourth conductor are continuously twisted about each other along the length of the cabling media, and wherein the third conductor and the fourth conductor twist completely about each other, three hundred and sixty degrees, at a second interval which purposefully varies along the length of the cabling media;

a third twisted wire pair including fifth and sixth conductors, each separately surrounded by an insulation, wherein the fifth conductor and the sixth conductor are continuously twisted about each other along the length of the cabling media, and wherein the fifth conductor and the sixth conductor twist completely about each other, three hundred and sixty degrees, at a third interval which purposefully varies along the length of the cabling media; and

a fourth twisted wire pair including seventh and eighth conductors, each separately surrounded by an insulation, wherein the seventh conductor and the eighth conductor are continuously twisted about each other along the length of the cabling media, and wherein the seventh conductor and the eighth conductor twist completely about each other, three hundred and sixty degrees, at a fourth interval which purposefully varies along the length of the cabling media, wherein the first interval purposefully varies in length within a first range of values, the second interval purposefully varies in length within a second range of values, the third interval purposefully varies in length within a third range of values, and the fourth interval purposefully varies in length within a fourth range of values.

2. The cabling media according to claim 1, wherein the first range of values is different than the second, third and fourth ranges of values.

3. The cabling media according to claim 2, wherein the second range of values is different than the third and fourth ranges of values.

4. The cabling media according to claim 3, wherein the third range of values is different than the fourth range of values.

5. The cabling media according to claim 1, wherein the first range of values has a first mean value of approximately 0.44 inches.

6. The cabling media according to claim 5, wherein the second range of values has a second mean value of approximately 0.41 inches.

7. The cabling media according to claim 6, wherein the third range of values has a third mean value of approximately 0.59 inches.

8. The cabling media according to claim 7, wherein the fourth range of values has a fourth mean value of approximately 0.67 inches.

9. The cabling media according to claim 1, wherein the first range of values purposefully varies within approximately  $\pm 0.05$  inches from a first mean value of the first range of values.

10. The cabling media according to claim 9, wherein the second range of values purposefully varies within approximately  $\pm 0.05$  inches from a second mean value of the second range of values, the third range of values purposefully varies within approximately  $\pm 0.05$  inches from a third mean value of the third range of values, and the fourth range of values purposefully varies within approximately  $\pm 0.05$  inches from a fourth mean value of the fourth range of values.

11. The cabling media according to claim 1, wherein the first range of values resides between about 0.39 inches and about 0.49 inches.

12. The cabling media according to claim 11, wherein the second range of values resides between about 0.36 inches and about 0.46 inches, the third range of values resides between about 0.54 inches and about 0.64 inches,

and the fourth range of values resides between about 0.62 inches and about 0.72 inches.

13. The cabling media according to claim 1, wherein the first, second, third and fourth twisted wire pairs are continuously twisted about each other along the length of the cabling media, and wherein the first, second, third and fourth twisted wire pairs twist completely about each other, three hundred and sixty degrees, at a fifth interval which purposefully varies along the length of the cabling media, and wherein the fifth interval purposefully varies in length within a fifth range of values.

14. The cabling media according to claim 13, wherein the fifth range of values has a fifth mean value of approximately 4.4 inches.

15. The cabling media according to claim 13, wherein the fifth range of values purposefully varies within approximately +/- 3.0 inches from a fifth mean value of the fifth range of values.

16. The cabling media according to claim 13, wherein the fifth range of values resides between about 1.4 inches and about 7.4 inches.

17. The cabling media according to claim 1, wherein the first, second, third and fourth twisted wire pairs do not include individual shielding layers to shield each from the other.

18. The cabling media according to claim 1, further comprising:

a jacket surrounding the first, second, third and fourth twisted wire pairs.

19. The cabling media of claim 18, wherein the first through eighth conductors are metallic conductors including copper and are twenty-four gauge.

20. The cabling media of claim 1, wherein the cabling media meets the specifications of CAT 5, CAT 5e or CAT 6 cabling.

21. The cabling media of claim 1, further comprising:

fifth through twenty-fifth twisted wire pairs, each twisted pair including a pair of conductors and each conductor separately surrounded by an insulation, wherein the respective pairs of conductors are continuously twisted about each other along a length of the cabling media, and wherein the respective pairs of conductors twist completely about each other, three hundred and sixty degrees, at respective fifth through twenty-fifth intervals which purposefully vary along the length of the cabling media.

22. A method of making a cabling media comprising the steps of:

providing first and second conductors, each separately surrounded by an insulation;

continuously twisting the first and second conductors about each other to form a length of a first twisted wire pair, wherein the first conductor

and the second conductor are twisted completely about each other, three hundred and sixty degrees, at a purposefully varying first interval along the length of the first twisted wire pair;

providing third and fourth conductors, each separately surrounded by an insulation;

continuously twisting the third and fourth conductors about each other to form a length of a second twisted wire pair, wherein the third conductor and the fourth conductor are twisted completely about each other, three hundred and sixty degrees, at a purposefully varying second interval along the length of the second twisted wire pair;

providing fifth and sixth conductors, each separately surrounded by an insulation;

continuously twisting the fifth and sixth conductors about each other to form a length of a third twisted wire pair, wherein the fifth conductor and the sixth conductor are twisted completely about each other, three hundred and sixty degrees, at a purposefully varying third interval along the length of the third twisted wire pair;

providing seventh and eighth conductors, each separately surrounded by an insulation; and

continuously twisting the seventh and eighth conductors about each other to form a length of a fourth twisted wire pair, wherein the seventh conductor and the eighth conductor are twisted completely about each other, three hundred and sixty degrees, at a purposefully varying fourth interval along the length of the fourth twisted wire pair, wherein the first interval purposefully varies in length within a first range of values, the

second interval purposefully varies in length within a second range of values, the third interval purposefully varies in length within a third range of values, and the fourth interval purposefully varies in length within a fourth range of values.

23. The method according to claim 22, wherein the first range of values is different than the second, third and fourth ranges of values.

24. The method according to claim 23, wherein the second range of values is different than the third and fourth ranges of values, and the third range of values is different than the fourth range of values.

25. The method according to claim 22, wherein the first range of values has a first mean value of approximately 0.44 inches.

26. The method according to claim 25, wherein the second range of values has a second mean value of approximately 0.41 inches, the third range of values has a third mean value of approximately 0.59 inches, and the fourth range of values has a fourth mean value of approximately 0.67 inches.

27. The method according to claim 22, wherein the first range of values purposefully vary within approximately +/- 0.05 inches from a first mean value of the first range of values.

28. The method according to claim 27, wherein the second range of values purposefully vary within approximately  $\pm 0.05$  inches from a second mean value of the second range of values, the third range of values purposefully vary within approximately  $\pm 0.05$  inches from a third mean value of the third range of values, and the fourth range of values purposefully vary within approximately  $\pm 0.05$  inches from a fourth mean value of the fourth range of values.

29. The method according to claim 22, wherein the first range of values resides between about 0.39 inches and about 0.49 inches.

30. The method according to claim 29, wherein the second range of values resides between about 0.36 inches and about 0.46 inches, the third range of values resides between about 0.54 inches and about 0.64 inches, and the fourth range of values resides between about 0.62 inches and about 0.72 inches.

31. The method according to claim 22, further comprising the steps of: continuously twisting the first, second, third and fourth twisted wire pairs about each other along the length of the cabling media, wherein the first, second, third and fourth twisted wire pairs are twisted completely about each other, three hundred and sixty degrees, at a purposefully varying fifth interval along the length of the cabling media, wherein the fifth interval varies in length within a fifth range of values.



32. The method according to claim 31, wherein the fifth range of values has a fifth mean value of approximately 4.4 inches.

33. The method according to claim 31, wherein the fifth range of values purposefully varies within approximately  $\pm 3.0$  inches from a fifth mean value of the fifth range of values.

34. The method according to claim 31, wherein the fifth range of values resides between about 1.4 inches and about 7.4 inches.

35. A cabling media comprising:

a plurality of conductor-pairs, each of said conductor-pairs including two metallic conductors each separately surrounded by an insulation and which along essentially the entire length of the cable media are twisted together in accordance with a twist scheme including a first pair having a twist length purposefully varying by at least  $\pm 0.01$  inches along the length of the cabling media; a second pair having a twist length purposefully varying by at least  $\pm 0.01$  inches along the length of the cabling media; a third pair having a twist length purposefully varying by at least  $\pm 0.01$  inches along the length of the cabling media; and a fourth pair having a twist length purposefully varying by at least  $\pm 0.01$  inches along the length of the cabling media; and

a jacket enclosing the plurality of conductor-pairs.

36. The cabling media of claim 35, wherein the plurality of conductor-pairs are twisted together to form a core.

37. The cabling media of claim 36, wherein the core has a twist length which purposefully varies by at least  $\pm 0.01$  inches along the length of the cabling media.

38. The cabling media of claim 35, wherein the cabling media meets the specifications of CAT 5, CAT 5e or CAT 6 cabling.

39. A cabling media comprising:

a plurality of conductor-pairs, each of said conductor-pairs including two metallic conductors each separately surrounded by an insulation and which along essentially the entire length of the cable media are twisted about each other in accordance with a twist scheme, wherein at least one of the conductor pairs has a twist length, defined as a length along the cabling media during which the two conductors of the conductor-pair twist completely about each other, three hundred and sixty degrees, which purposefully varies along the length of the cabling media; and

a jacket enclosing the plurality of conductor-pairs.

40. The cabling media according to claim 39, wherein at least two of the conductor pairs have twist lengths which purposefully vary along the length of the cabling media.

41. The cabling media according to claim 39, wherein at least three of the conductor pairs have twist lengths which purposefully vary along the length of the cabling media.

42. A cabling media comprising:

a first twisted wire pair including first and second conductors, each separately surrounded by an insulation, wherein the first conductor and the second conductor are continuously twisted about each other along a length of the cabling media, and wherein the first conductor and the second conductor twist completely about each other, three hundred and sixty degrees, at a first interval along the length of the cabling media; and

a second twisted wire pair including third and fourth conductors, each separately surrounded by an insulation, wherein the third conductor and the fourth conductor are continuously twisted about each other along the length of the cabling media, and wherein the third conductor and the fourth conductor twist completely about each other, three hundred and sixty degrees, at a second interval along the length of the cabling media, wherein the first and second twisted wire pairs are continuously twisted about each other along the length of the cabling media, and wherein the first and second twisted wire pairs twist completely about each other, three hundred and sixty degrees, at a core strand interval which purposefully varies along the length of the cabling media.

43. The cabling media according to claim 42, wherein the core strand interval purposefully varies in length within a core strand interval range of

values, and wherein the core strand interval range of values has a mean value of approximately 4.4 inches.

44. The cabling media according to claim 42, wherein the core strand interval purposefully varies in length within a core strand range of values, and wherein the core strand range of values purposefully varies within approximately +/- 3.0 inches from a core strand mean value of the core strand range of values.

45. The cabling media according to claim 42, wherein the core strand interval purposefully varies in length within a core strand range of values, and wherein the core strand range of values resides between about 1.4 inches and about 7.4 inches.